1792A
EA-00-09
Shotgun Area
Road Closures/Improvements EA

April 18, 2000

Concerned Citizen,

The McKenzie Resource Area of the Eugene District Bureau of Land Management has completed the Environmental Assessment for a proposal to close an estimated 9 miles of road and improve an estimated 2.3 miles of road in the Shotgun Project Area. The Shotgun Project Area includes the Shotgun, Cash and Drury Creek drainages. Improving roads would mean replacing culverts, adding drainage features and additional culverts. These actions would take place over 5 years starting in fiscal year 2000.

You have expressed an interest in receiving copies of Environmental Assessments for district projects. Enclosed is a copy of the Environmental Assessment for your review and any comments. Public notice of this action will be published in the Eugene Register Guard on April 19, 2000. The public comment period will end on May 19, 2000. If you have any questions concerning this proposal, please feel free to call Trish Wilson at 683-6448.

Comments, including names and street addresses of respondents, will be available for public review at the district office, 2890 Chad Drive, Eugene, Oregon during regular business hours (7:45 a.m. to 4:15 p.m.), Monday through Friday, except holidays, and may be published as part of the EA or other related documents. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Sincerely,

Emily Rice, Field Manager
McKenzie Resource Area

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ENVIRONMENTAL ASSESSMENT

OR090-EA-00-09

Shotgun Project Area
Road Closures and Road Improvements

1.0 Purpose of and Need for the Action

1.1 Introduction

The Bureau of Land Management (BLM) McKenzie Resource Area proposes to close an estimated 9 miles of road and improve an estimated 12.3 miles of road (see figures 1.1, 1.2). Improving roads would mean replacing culverts, adding drainage features and additional culverts. These actions would take place in the Shotgun Project Area which includes the Shotgun, Cash and Drury Creek drainages. The project area is located less than 10 miles northeast of Eugene/Springfield. The actions would take place over a period of 5 years starting in fiscal year 2000.

1.2 Need For The Proposal

Road Closure

The need for action is to close roads not needed within the next twenty years for timber management and to improve roads needed for the long-term. Reasons for road closures are:

- decreasing trends for road maintenance funds
- increase in sedimentation into streams
- impacts to the integrity of the stream banks.

Three roads (15-2-20.1, 15-2-1, 15-2-1.1) have additional reasons for closure. The 1997 MRAMP (Mohawk Recreation Area Management Plan) includes a management action (i.e., F1) to block motorized access to BLM Road 15-1-20.1 north of the BLM Road 15-1-17.2 junction. Shooting activity within the road prism would be discouraged. Roads 15-2-1 and 15-2-1.1 are within the Horse Rock Ridge Area of Critical Environmental Concerns (ACEC). The Eugene RMP directs, "public access will be regulated, when necessary to maintain primary values within Special Areas."

Road Improvements

Road improvements are needed because of:

- potential safety problems,
- sedimentation impacts to streams
- fish passage concerns.

Some log culverts are collapsing, creating a potential safety hazard for drivers and the possibility of damage to the road. Over 19 culverts are barriers to fish passage. Roads also need to be improved to increase drainage features on roads to better direct water flow off the roads and away from streams.

In addition to needs discussed above, the Eugene ROD/RMP gives direction for management of roads. The ROD/RMP states the following:

- Reduce road density by closing minor collector (primarily gravel roads) and local roads (primarily dirt roads or short spurs) in areas or watersheds where water quality degradation, big game harassment, or other road related resource problems have been identified.

- Provide and maintain fish passage at all

road crossings of existing and potential fish-bearing streams.

- Improve existing culverts determined to pose a substantial risk to riparian conditions.
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1.3 Objectives Of The Proposal

- To reduce BLM road mileage in the Shotgun Project area
  Measure: the mileage of roads closed.

- To reduce roads with road related resource problems
  Measure: mileage of roads closed that are causing an increase in sedimentation or poor water drainage; number of roads improved;

- To decrease the number of culverts that are fish barriers and increase the available fish habitat
  Measure: number of fish-barrier culverts replaced; miles of potential fish habitat made available to fish

1.4 Scope of this environmental analysis

This project is limited to the Shotgun Project Area. The Shotgun Transportation Planning Effort interdisciplinary team used a systematic approach for recommending roads to be closed and roads to be improved within the Shotgun Project Area. The team recommended roads for closure that would not be needed for timber management purposes over the next 20 years. In determining whether to recommend improving a road, the Shotgun Transportation Planning Team examined the following:

- long term (20 yrs) needs of the road,
- if the road conditions were considered a safety concern,
- whether culverts were fish barriers,
- size and condition of the culverts

This project will not include roads needed for future timber sales nor roads determined to have a potential for road-to-trail conversions. The roads needed for future timber sales will be addressed under the appropriate timber sale Environmental Assessment (EA). Roads that have potential for road-to-trail conversions will be addressed under future EAs specific to recreation management.

1.4.1 Scoping process

Letters were mailed out to Oregon Department of Forestry, Oregon Department of Fish & Wildlife, Willamette Industries and a local representative of the Oregon Hunters Association. A letter and maps were given to the Emerald Empire Gun Club to share with their customers. The project was discussed at the Trail User Group meeting on January 20, 2000. The Project was included in the Mohawk Watershed Partnership Newsletter Winter/Spring edition and the February 2000 edition of the Eugene BLM Planning and Project Focus newsletter. No responses were received from our scoping process.

1.4.2 Related EISs, EAs, and other relevant documents

This EA is tiered to the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl*, April 1994, and the *Eugene District Record of Decision and Resource Management Plan (RMP)*, June 1995. Actions described in this EA are in conformance with the Aquatic Conservation Strategy (ACS) Objectives Listed on page B-11 and the Standards and Guidelines for Riparian Reserves on pages C-31 to C-37 of the Northwest Forest Plan (ROD).

These documents are available for review at the Eugene District Office of the BLM, Eugene, Oregon.

1.4.3 Issues to be Studied in Detail

Issue 1: Recreation - What impacts would closing the roads have on dispersed and developed recreation?

Dispersed and developed recreational activities within the project area could be displaced or modified by proposed road closures and improvements.

Indicators (used to estimate effects)
- roads known to coincide with dispersed recreational activities
- known shooting areas near Shotgun Park

Issue 2: What impacts would closing and improving roads have on Spring Chinook and Northern Spotted Owls?

Spring Chinook - The closing of roads and removal of fish barriers may have impacts on sedimentation and fish passage.

Indicators
- distances from Spring Chinook habitat

Northern Spotted Owl - There is a concern about noise disturbance during the nesting season. Machinery used to remove and replace culverts would increase the ambient noise level in a particular area.

Indicators:
- miles of road closed within 0.25 mile of suitable habitat
- number of culverts replaced within 0.25 mile of suitable habitat
- acres of suitable spotted owl habitat within 0.25 mile of proposed activities
- acres of suitable habitat within 0.25 mile of the project

1.4.4 Issues Eliminated from Detail Study

Survey & Manage

The Northwest Forest Plan includes measures to protect a variety of species associated with late-successional and old-growth forests (amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens, and arthropods). The Standards and Guidelines for "Survey and Manage" (S&M) species require that surveys be conducted for Component 1 and 2 S&M species (listed in Table C-3 in the ROD) in suitable habitat prior to ground-disturbing activities. Known sites are to be identified, mapped, and managed.

Existing roads are not considered suitable

habitat for S & M plant (i.e., fungi, bryophytes, and lichens) and wildlife species (i.e., red tree vole and mollusks [blue-gray tail-dropper, papillose tail-dropper, Oregon megomphix, Crater Lake tightcoil]); therefore, no surveys were conducted in those locations.

Culvert replacement and removal activities could result in removal of conifers and hardwoods. Habitat was assessed in these areas for suitability for red tree voles and S&M fungi, bryophytes, and lichens. Surveys were conducted for these species where required during March 2000. No red tree vole nests nor S&M plant species were found at those locations.

Because no known sites for S&M species were identified during surveys conducted prior to ground-disturbing activities, management of these species does not need to be addressed or analyzed further in this document.

Bald Eagles
This species will not be analyzed within this document because no suitable nesting or roosting habitat is within 0.25 mile of the proposed project activities.

Canada Lynx
Suitable habitat for Canada Lynx in western Oregon occurs above 3000 ft in elevation. Since the maximum elevation of BLM land directly affected by the proposed project is 2400 feet, this species will not be analyzed within this document.

T & E Plants

No T&E plants exist where ground disturbing activities would occur.

Scotch broom - The issue of whether ripping roads would promote the spread of scotch broom within the project area and watershed was eliminated because a design feature was developed to address this concern.

2.0 Alternatives Including the Proposed Action

2.1 Introduction

This chapter describes the alternatives and compares how the alternatives address the issues and objectives.

2.2 Alternative 1 - No Action

This alternative would have the following management actions:

- no road closures at this time
- no road improvements beyond regular maintenance
- regular maintenance such as maintaining drainage structures, grading, and brushing would continue to occur approximately every 3 years

Reduce the number of BLM roads

This alternative would not reduce the number of BLM roads in the project area. Maintenance funds/work may be diverted from other roads to maintain roads recommended for closure.

Reduce the number of roads with road related resource problems

The number of roads causing road related resources problems would not be reduced. Resource problems could include: sedimentation entering streams, roads impacting stream banks and road use causing noise disturbance to spotted owls. Most of the problems would continue. Some of the resource problems are caused by the roads location. Routine road maintenance would not address these problems. Culverts that are undersized or fish barriers would not be fixed under routine maintenance. However, some problems may be fixed through routine road maintenance.

Reduce the number of culverts that are fish passage barriers

Over 19 culverts were determined to be barriers to fish passage. These culverts would continue to be fish passage barriers.

2.3 Alternative 2 - Road Closures and Improvements

This alternative would have the following management actions:

- close an estimated 9 miles of road
- improve an estimated 12.3 miles of road by
  - replacing culverts
  - adding drainage features
  - adding culverts

See appendices A and B for list of roads proposed for closure and improvement. Removing, replacing or adding culverts would require the felling and removal of trees adjacent to the culverts. An estimated 0.01 to 0.02 acre around each culvert may be impacted for a total of 1 - 2 acres in the project area. Trees removed may be sold or used for restoration projects.

Reduce the number of BLM roads

An estimated 9 miles of roads would be

closed. This alternative would reduce the amount of BLM roads within the project area from 99 to 90 miles of roads. Individual roads would be closed by one of the following 3 methods:

- block the road entrance
- pull culverts and block the road entrance
- pull culverts, rip the road bed, and block the road entrance

Reduce the number of roads with road related resource problems

- 2.2 miles of the 9 miles of roads to be closed are causing resource problems
- six roads to be improved are causing resource problems

Reduce the number of culverts that are fish barriers

- replace over 19 culverts that are fish barriers;

Design Features:

- Northern Spotted Owl Seasonal Restrictions - Seasonal restrictions for Northern Spotted Owls would be required from March 1 - July 15 if owls are nesting or if nesting status is undetermined in suitable habitat within 0.25 miles of project activities associated with road closure and/or culvert replacement. No project activities would be permitted within 0.25 mile of known owl activity centers or unsurveyed suitable habitat during this time period unless the activity was determined by wildlife biologists to have no adverse effect on spotted owls. Road closure activities would be affected by these seasonal restrictions in segments of or the entire length of the following BLM roads: 15-1-17, 15-1-19.2, 15-1-21.2, 15-1-21.3, 15-1-21.4, 15-1-21.5, 15-1-21.6, 15-1-29.2, 15-1-29.3, 15-2-1, 15-2-1.1, 15-2-15.3, and 15-2-36.1. Culvert replacement activities on the following BLM roads would also be affected by these seasonal restrictions: 15-2-1.1, 15-2-15.3, 16-1-5 (in T15S-1W-31 & T15S-2W-13) and 15-1-32 (in T16S-1W-6).

- ODFW - Seasonal restriction - No work in streams would occur from October 16 to June 30.

- Primary systems (15-1-20.1 & 15-1-30.1) would be signed with an explanation of why the roads were closed.

- Use and maintain silt fences to reduce sedimentation when replacing culverts according to consultation with hydrologist or soil scientists.

- Snags felled for safety reasons are to remain on site for wildlife habitat whenever possible.

- To limit the spread of scotch broom from heavily infested to uninfested areas by machinery such as dozers, etc. the following should occur:

  - The order of work would go from uninfested areas to less infested to heavily infested (levels of infestation as identified by the botanist or engineers)

or

- machinery would be washed to remove soil before moving from infested to uninfested areas.

- Two of the culverts on Dollar Road near a pond should be replaced during the lowest flow of the year. To the extent possible try to prevent the pond from fully draining.

2.4 Comparison of Alternatives

Element	Alternative 1 - No Action	Alternative 2 - Road Closures
Total mileage of BLM roads closed	0	9
mileage of road related resource problems closed	0	2.2
mileage of road improved	0	12.3
miles of BLM roads closed within 0.25 mile of suitable spotted owl habitat	0	4.7
Number of fish barrier culvert replaced	0	over 19
Issue 1 - Dispersed Recreation	no reduction in public access	reduction in public access but opportunities for disperse recreation would be maintained
Issue 1 - Developed Recreation	shooting activities from road 15-1-19.2 would continue	shooting activities from road 15-1-19.2 would decrease or be eliminated, increasing public safety at the Shotgun Park
Issue 2 - Chinook Salmon	current level of sedimentation would continue; number of culverts that are barriers to fish passage would remain	reduction in sedimentation; reduction in the number of culverts that are barriers to fish;
Issue 2 - Northern Spotted Owls	continued vehicle use of 4.7 miles of road within 0.25 mile of suitable spotted owl habitat maintaining the potential for vehicle disturbance on 210 acres of suitable spotted owl habitat	closure of 4.7 miles of roads reduces potential vehicle disturbance of 210 acres of suitable spotted owl habitat.

3.0 Affected Environment

3.1 Introduction

This chapter presents a description of relevant resource components of the existing environment. It describes baseline information specific to the terrestrial, aquatic, and human elements that comprise the project area.

3.2 Recreation (issue 1)

3.2.1 Dispersed Recreation

The Shotgun Project Area is popular for its motorized and non-motorized dispersed recreational opportunities. Recreational activities commonly conducted within the area include shooting (e.g., hunting, skeet, target), camping, trail riding, driving-for-pleasure, scenic viewing, etc. These activities occur on, or are facilitated by, roads proposed for closure and others proposed for improvement.

The majority of roads identified for closure are gravel surfaced and lack gates. They are easily accessible to non-4X4 vehicles. A few dirt-surface roads (i.e., BLM Roads 15-1-30.1C, 15-1-17.1, and 15-1-29.7) are accessible only to 4X4 vehicles at least part of the year when roads are wet.

Five proposed road-to-trail conversions located within the project area, and covered under the Shotgun Trail EA, have been analyzed for single-track motorized and non-motorized trail recreation. These segments comprise a portion of a proposed 27-mile loop system within the Shotgun drainage. Motorized trail recreation coincides with four roads proposed for closure under this EA: BLM Roads 15-1-17.3, 15-1-21, 15-1-19.2, and 15-1-20.1. These roads were not identified for possible road-to-trail conversions during the 1999 Shotgun transportation planning effort.

3.2.2 Developed Recreation

The Shotgun Project Area includes Shotgun Park, a developed recreation site managed by the BLM. The park is within a 277-acre SRMA (Special Recreation Management Area). Concentrated recreational use in the SRMA occurs within a highly developed, 10-acre area divided into picnicking, shelter rental, and community play centers. Hiking occurs outside the perimeter of this area along an 8-mile trail network bordered, in part, by BLM Road 15-1-19.2. The end of BLM Road 15-1-19.2 is within approximately 1,000 feet of the Shotgun Creek portion of the park's trail system. **Shooting activity occurs along the 15-1-19.2 road and poses a safety risk to Shotgun Park visitors.** Park visitation for 1998 was 91,285. It is unknown as to what percentage of the total visitation number is attributed to hiking activity.

3.3 Threatened and Endangered Species (issue 2)

3.3.1 Spring Chinook

Anadromous and non-anadromous fish species are found throughout the proposed project area. Spring chinook salmon have historically used the Mohawk River and Shotgun Creek; Shotgun Creek was used during spawning activity. Potential habitat for salmon is assumed to extend along the Mohawk River and up Shotgun Creek to its confluence with Seeley Creek. Spring chinook salmon are listed under

the Endangered Species Act (ESA) as a threatened species.

The project area is used extensively by recreational off-road vehicles. Trails with unimproved crossings of perennial, intermittent, and ephemeral streams occur throughout the area. Stream reaches below trail crossings have a higher fine sediment component in the streambed material size distribution than do areas above trail crossings.

3.3.2 Northern Spotted Owls

There is no designated Critical Habitat Unit for Northern Spotted Owls within or adjacent to the proposed project area. There is a 116-acre unmapped Late Successional Reserve (LSR) within the proposed project area (Figure 1.1). This LSR is also a spotted owl core area and was established around an owl site center originally identified in 1987. No owl use or activity has been documented within the LSR since the original site center was established; all owl activity has been recorded at least 1 mile south of the LSR. No road closure and culvert replacement activities are proposed inside the LSR boundary.

Suitable nesting habitat for the Northern Spotted Owl is mature forest (generally greater than 80 years old) with high percentage of canopy closure, an open understory, large diameter down logs and large diameter snags. Across the project area, there are fragmented patches of suitable nesting habitat totaling approximately 285 acres that occur within 0.25 mile of the roads proposed for closure or culvert replacement. Nest sites and activity of the known spotted owl pair in the Shotgun area have been recorded within 0.25 mile of 3 roads proposed for closure and 3 culverts proposed for replacement.

3.4 Aquatic Environments - Aquatic Conservation Strategy Objectives (ACSO) (1,2,3,8,9)

The roads proposed for closure and culvert replacement are within a combination of forested upland and riparian environments. The riparian areas contain a network of perennial, intermittent, and ephemeral streams, and a few small ponds and seeps.

The aquatic environments adjacent to the roads proposed for closure and culvert replacement provide habitat for many amphibian species. Breeding habitats in the project area for aquatic-breeding amphibians may include bogs, ponds and slow-moving streams. Aquatic vegetation provides structure for the attachment of eggs and cover for amphibian larvae.

The roads proposed for closure and culvert replacement contain a number of log and metal culverts that are in varying degrees of disrepair. The culverts provide habitat and stream crossings for aquatic vertebrates and invertebrates. Many of the log culverts are failing because of decay which is causing sediment delivery to streams.

3.5 Water Resources - ACSO (4 - 7)

Roads proposed for closing are native or gravel surfaced with inadequate provisions for water drainage. These roads contribute fine sized sediment both directly and indirectly to stream systems. Several culverts proposed for replacement or removal are a log culvert type, which tend to fail over time, erode the road fill, and introduce sediment directly to streams. (ACSO - 4&5)

Sediment from natural events and human activities does directly access aquatic systems in the proposed project area. Naturally caused soil movement and landslides do occur in the area and introduce sediment directly to streams or indirectly from the road network. (ACSO - 4&5)

Information on peak flow can be found in the Mohawk/McGowan watershed analysis. (ACSO - 6)

No classifiable wetlands exist immediately adjacent to roads proposed for closing. Some isolated sites immediately upstream or downstream of culverts possess wetland characteristics related to the ponding effect of road fills and deposition of fine sediment materials. (ACSO - 7)

3.6 Fish

Rainbow and steelhead trout are found in the project area along all major streams tributary to the Mohawk River. Rainbow and steelhead trout utilize the mid to lower reaches of Showalter, Cash, Shotgun, Owl, Seeley, and Drury Creeks. Cutthroat trout occur along all tributaries in the project area ranging from moderate gradient headwaters to the Mohawk River. A description of the fisheries in the Mohawk River drainage is given in the Mohawk/McGowan Watershed Analysis (BLM, 1995) and Mohawk River Watershed Assessment (NRCS, 1999).

Fall spawning fish are assumed to encounter stream flow and temperature migration barriers in the lower reaches of the Mohawk River during periods of low stream flow volumes. The Mohawk River is on the State of Oregon's 303(d) list of water quality impaired streams for having temperatures which at some point in the year exceed State standards.

Roads proposed for closing and culverts proposed for replacement all fall within drainage systems which are fish bearing or contribute directly to fish bearing streams.

3.7 Roads

There are 99 miles of BLM roads in this project area. An estimated 9 miles of roads have been recommended for closures. Some of these roads are located in the riparian zone, or causing sedimentation into streams, or are near suitable spotted owl habitat. An estimated 12.3 miles of roads are recommended for improvements. Some of the roads have culverts that are barriers to fish passage, or have log culverts that are failing and contributing sedimentation into streams or some culverts are undersized for the amount of water that may flow through them.

3.8 Vegetation

Since the roads were constructed some 50 years ago, trees have grown up along side the roads. Vegetation along the roads are a mixture of hardwoods and conifers, moss, and shrubs.

3.9 Horse Rock Ridge (ACEC)

There are 2 primary natural plant communities in the ACEC, the grassland community and the forest community. The grassland community consists of 3 distinct plant associations: *Elymus glaucus* (blue wild rye); *Festuca idahoensis* (Idaho fescue) and *Stipa lemmonii/Rhacomitrium canescens* (Lemmon's needlegrass/moss). The forest community is

Douglas-fir/Western hemlock, Oregon grape, salal, snowberry. Four roads currently access the Horse Rock Ridge ACEC. Two roads are proposed for closure. Road 15-2-1 was the subject of earlier efforts to discourage vehicle use.

4.0 Environmental Consequences

4.1 Introduction

This chapter presents a description of probable consequences of each alternative on selected environmental resources and human activities as they relate to the relevant issues described in *Chapter 1*. It serves as a scientific and analytic basis for comparison of the alternatives described in Chapter *2.0, Alternatives Including the Proposed Action*.

The cumulative effects analysis for the proposed activities incorporate effects detailed in the Eugene District Proposed RMP/EIS dated November, 1994. The documents analyzed activities similar to those proposed in the trail environmental analysis and detailed effects from road closure, habitat restoration, and other related management activities.

4.2 Recreation - What impacts would closing the roads have on dispersed and developed recreation?

Alternative 1 - No Action

4.2.1A Dispersed Recreation

Direct & Indirect Effects

This alternative would not reduce road mileage historically used for dispersed recreation; nor would public access be temporarily prevented as a result of road improvements. Future road access could be jeopardized if road damage or failure occurred as a consequence of unrealized culvert replacements and/or other road improvements.

Cumulative Effects

BLM Road 15-1-20.1 north of the BLM Road 15-1-17.2 junction would not have motorized access blocked, as recommended in Management Action F1 of the Mohawk Recreation Area Management Plan.

4.2.1B Developed Recreation

Direct & Indirect Effects

This alternative would retain public access to BLM Road 15-1-19.2. Shooting activities linked to that road would continue posing a safety risk to Shotgun Park visitors, particularly those utilizing the Shotgun Creek portion of the park's hiking trail system.

Cumulative Effects

No cumulative effects are anticipated under this alternative.

Alternative 2 - Road Closures

4.2.2A Dispersed Recreation

Direct & Indirect Effects

This alternative would reduce road mileage historically used for some form of dispersed recreation within the project area. None of the road segments proposed for closure, however, are exclusively used for any form of dispersed recreation. In other words, the camping, shooting, scenic viewing, driving-for-pleasure, other recreational activities that occur on roads

proposed for closure also occur on nearby roads that would remain open.

Proposed road improvements described under this alternative could temporarily prevent public access as roads undergo repair. However, this short-lived situation would be off set by improved road conditions that would extend the life of the affected roads.

Cumulative Effects

Closure of the 4 roads that show evidence of coincident motorized trail recreation would reduce the number of road linkages that connect trail segments within the project area. In 3 of the 4 cases, the 27-mile trail loop system (proposed under the Shotgun Trail EA) is located immediately adjacent to the proposed road closures and would allow for continued single-track trail recreation nearby. Only in the case of BLM Road
15-1-21 would this not be true.

Future trail planning anticipated within the reasonably foreseeable future could provide managed motorized and non-motorized single- and dual-track trail recreation opportunities within the project area beyond that described in the Shotgun Trail EA. This planning could include additional road-to-trail conversions. Likewise, closure of trails and old road surfaces could result, particularly in areas where parallel trails exist or where resource damage cannot be reasonably mitigated.

Closure of BLM Roads 15-1-17.3 and 15-1-20.1 would support Management Action F1 of the MRAMP.

4.2.2B Developed Recreation

Direct & Indirect Effects

Closure of BLM road 15-1-19.2 would render greater safety to Shotgun Park visitors from shooting activity that occurs along that road.

Cumulative Effects

No cumulative effects are anticipated under this alternative.

4.3 Threatened and Endangered Species - What impacts would closing and improving roads have on Spring Chinook and Northern Spotted Owls?

Alternative 1 - No Action

4.3.1A Spring Chinook

Direct & Indirect Effects

No change in overall habitat condition or direct effects would occur under Alternative I. Continued use of roads in close proximity to spring salmon bearing stream segments would result in continued sedimentation either directly to the salmon bearing reaches or indirectly through streams which flow into salmon bearing segments.

Indirectly, sediment generated from continued road use could be detrimental to fish. Fine sediments fill the spaces between gravels and reduces localized oxygen concentration which leads to a suffocation of eggs and fry or the accumulation of fine sediments over developing eggs which could reduce fry emergence rates. The macroinvertebrates (stoneflies/mayflies,

etc.) that are the primary food source for fish also use the gravel beds as habitat, so fine sediment indirectly affects fish by limiting the food supply. Under this alternative, fine sediment would continue to enter channels from the roads at a rate unchanged from current conditions.

Culverts identified as barriers to fish passage would not be replaced under Alternative I. Any culverts which are currently physical barriers to salmon migration patterns would continue to be so. Access to potential habitat above these culverts would not be improved.

Cumulative Effects

Continued use of roads in their existing condition combined with recreational trail use throughout the Shotgun Creek and surrounding watersheds would lead to a continuation of introducing sediment to streams in direct relation to the total combined trail and road mileage. However, efforts underway to reduce impacts from recreational trail use could reduce the amount of fine sediment contributed from trails throughout the Shotgun Creek area and could result in an overall reduction of sediment reaching spring chinook salmon streams.

No measurable change in amount, type, quality, or accessibility of potential salmon habitat would occur in Shotgun Creek or in the greater Mohawk River watershed.

4.3.1B Northern Spotted Owls

Direct & Indirect Effects

Approximately 4.7 miles of existing graveled and/or dirt BLM roads within the Project Area would remain open within 0.25 miles of suitable spotted owl habitat. Current use of these roads by motorized vehicles during the critical nesting period could cause disturbance to potentially nesting spotted owls. This disturbance could be perpetuated over time with continued use of these roads during the critical nesting period.

Current use of BLM roads within the Project Area by motorized vehicles is not modifying spotted owl nesting habitat. Continued use of these roads is not expected to modify spotted owl habitat.

Cumulative Effects

Road closures would not be implemented under this action and thus potential disturbance to owls within the Project Area would not be reduced.

The management of forests on BLM and Forest Service lands within the range of the Northern Spotted Owl is detailed in the Northwest Forest Plan (NFP). This plan is designed to maintain species viability and provide for the recovery of the Northern Spotted Owl. All current and foreseeable actions on the Eugene District BLM land would meet the Standards and Guidelines directed by the NFP and RMP.

Private lands both within and outside of the project area potentially provide suitable habitat for the Northern Spotted Owl. It is likely that this habitat could be modified in future actions on these lands.

Current and future projects across the

checkerboard pattern of BLM and private landownership could negatively affect individual spotted owls and/or their habitat, but cumulatively, since Eugene District BLM lands will be managed for the recovery of this species, these actions would not negatively affect the viability and recovery of the Northern Spotted Owl.

Alternative 2 - Road Closures & Improvements

4.3.2A Spring Chinook

Direct & Indirect Effects

No direct effects are anticipated under Alternative 2. Spring chinook salmon habitat ranges from 0.1 mile to 3 miles away from culverts identified for replacement. Roads recommended for closure range from 0.25 mile to 3 miles away from spring chinook salmon habitat.

Indirectly, there would be a short-term increase in sediment delivery to streams from culvert removals. Ground disturbance associated with the removal or replacement of culverts considered in combination with the distances from potential salmon habitat, it is unlikely that the actions would measurably affect salmon. Design features employed would reduce any potential impacts resulting from site disturbance associated with culvert replacement.

Road closures would reduce the amount of fine sediment reaching streams. Effective road closure and site rehabilitation would result in the stabilization of road surfaces and the establishment of vegetation; all with the result of reducing actual sediment transport and delivery to streams.

Replacement of culverts identified as barriers to fish movement would increase salmon access to historical habitat. The amount of increase in habitat accessible could range from hundreds of feet to miles depending upon individual culvert locations.

Cumulative Effects

The cumulative effects analysis for the proposed actions was considered with other foreseeable future actions including recreational trail repair efforts. Cumulative effects at the project analysis area level would show a general decrease in fine sized sediment materials related to trail and road use reaching stream systems. The streambed material size distribution would increase along stream segments downstream of channel crossing structures on trails and could result in a relative increase in streambed materials to sizes larger than sand. Removal of culverts identified as sources of sediment to streams would also reduce the amount and size of materials reaching streams. Effects at the Mohawk Watershed area level would be very difficult to measure but any incremental decrease in fine sediment reaching streams could increase overall habitat quality.

Effects at the Shotgun Creek watershed scale would have discernable increases in overall potential spring chinook salmon habitat. At the Mohawk River scale, an incremental increase in habitat accessibility would result from Alternative 2.

4.3.2B Northern Spotted Owls

Direct & Indirect Effects

There would be no direct or indirect effects to suitable nesting habitat as the proposed action would not result in modification of spotted owl nesting habitat.

The proposed project would not directly affect spotted owls during the critical nesting period (March 1 - July 15) because seasonal stipulations would be in place during this time period if owls are nesting or if nesting status is undetermined in suitable habitat within 0.25 mile of project activities associated with road closure and/or culvert replacement. These restrictions would eliminate potential project disturbance to nesting spotted owls during the critical nesting period. The proposed project could affect spotted owls during the remainder of the breeding season (July 15-Sept 30) because seasonal stipulations would not be in place during this time period. Consultation for effects due to disturbance were analyzed under the Programmatic Biological Assessment for Projects with the Potential to Disturb Northern Spotted Owls and/or Bald Eagles in the Willamette Province for FY 2000, December, 1999.

Approximately 4.7 miles of BLM graveled or dirt surface roads are within 0.25 mile of suitable habitat and would be closed under this alternative. Closing these roads could reduce vehicle disturbance to 210 acres of suitable spotted owl habitat. Northern Spotted Owls, if present, could indirectly benefit from this action.

Cumulative Effects

Same as Alternative 1, except for the following. The closure of roads proposed in this document could reduce vehicle disturbance to the known owl pair in the Shotgun area. Future proposed actions on the McKenzie Resource Area such as long-term management of a trail system for motorized recreational use within the Shotgun Area could indirectly benefit spotted owls by potentially reducing the mileage of trails used by OHVs and associated disturbance.

Current and future projects across the checkerboard pattern of BLM and private land ownership could negatively affect individual spotted owls and/or their habitat, but cumulatively, since Eugene District BLM lands will be managed for the recovery of this species, these actions would not negatively affect the viability and recovery of the Northern Spotted Owl.

4.4 ACS Objectives - How would the attainment of the ACS objectives at the watershed scale be affected?

The activities described in the proposed action alternatives are necessary to attain the objectives in the Aquatic Conservation Strategy. Actions may include work in Riparian Reserves and on adjacent uplands with the intent to aid in the recovery or restoration of physical and biological components of the ecosystem. The following provides the effects analysis for the proposed alternatives and describes the nature and extent of potential impacts with regard to botany, fisheries, hydrology, soils, and wildlife resources:

Alternative 1 - No Action

4.4.1A ACS - Objectives (1,2,3,8,9)

The no action alternative would not contribute toward the maintenance or restoration of the physical, chemical, or biological components needed for healthy and viable aquatic ecosystems. No overall change in species movement patterns within or between watersheds, species composition, diversity, or distribution would occur. Aquatic habitat condition and quality would not be improved and could degrade further with continued activity in the Shotgun Creek area.

4.4.1B ACS - Objectives (4 - 7)

Water quality and hydrologic regime characteristics would not change under the no action alternative. Sediment production from roads, trails, and natural events with associated direct and indirect input to streams would continue at roughly the current rate. However, sedimentation to streams from roads could increase as problem culverts fail and with continued use of problem roads.

Alternative 2 - Road Closures & Improvements

4.4.2A ACS - Objective 1

Direct & Indirect Effects

Alternative 2 would contribute to the restoration of the distribution, diversity, and complexity of watershed and landscape-scale features needed to ensure protection of aquatic systems by closing an estimated 9 miles of road and replacing culverts on an estimated 12.3 miles of road. Approximately 54 culverts would be replaced across perennial, intermittent and ephemeral streams. Replacement of culverts would result in a reduction of sediment delivery to streams and potential disturbance to surrounding resources. Road closure would reduce erosion and sedimentation by promoting vegetation establishment in the previously disturbed areas. Culvert removal associated with road closure would allow for the restoration of natural hydrologic flow patterns by removing constricting road fills and would also promote the reestablishment of riparian vegetation. Closure of roads causing or contributing to resource impacts which cannot be reduced to acceptable levels would result in an overall reduction in sediment reaching aquatic systems and would promote the restoration of habitat by reestablishing vegetative cover.

4.4.2B ACS - Objective 2

Direct & Indirect Effects

The Proposed activities would maintain the spatial and temporal connectivity within and between watersheds. No barriers to aquatic species or related biota are known to occur along or immediately adjacent to the roads proposed for closure and culvert replacement. Connectivity within watersheds would be enhanced by road closure and culvert removal.

4.4.2C ACS - Objective 3

Direct & Indirect Effects

The Proposed activities would contribute to the restoration of the physical integrity of the aquatic system by the removal of culverts and road fill at specific locations and by closing roads. Removal of road fill and rehabilitation of stream banks associated with culverts along roads would establish stream bank stabilizing vegetation which would reduce or prevent sediment entering streams. Closure of sediment contributing road segments which cannot be repaired would reduce the amount of sediment reaching aquatic systems. Removal of vehicle access to roads and the reduction of sediment reaching streams by closing would reduce the amount of finer sized materials entering aquatic systems.

4.4.2D ACS - Objective 4

Direct & Indirect Effects

Proposed activities would contribute to the maintenance of the long-term and overall water quality levels necessary to support healthy aquatic and related ecosystems. Localized, short-term increases in turbidity could occur during culvert removal and site rehabilitation. Minor amounts of sediment may enter streams resulting from road closing activities. All effects would be short-lived. Long-term effects would result in an overall reduction of sediment entering streams via roads and failing culverts and reduce indirect sedimentation from problem roads. Proposed actions would have no measurable effect on stream temperatures.

4.4.2E ACS - Objective 5

Direct & Indirect Effects

Proposed activities would contribute to the restoration of the sediment regime under which aquatic ecosystems evolved. Closing would remove sources of fine sediment. Site recovery following road closing would lead to a reduction in total volume of fine sediment reaching streams. The timing, rate, storage, and transport of sediment would approach more natural circumstances with the elimination of direct paths of sedimentation along roads or at problem culverts.

4.4.2F ACS - Objective 6

Direct & Indirect Effects

Proposed activities would not prevent or retard the maintenance of in-stream flow patterns. Proposed activities would have no anticipated effect on the timing, magnitude, or duration of flows or to a change in the distribution of peak, high, or low flows.

4.4.2G ACS - Objective 7

Direct & Indirect Effects

Proposed activities would not prevent or retard the maintenance of the timing, variability, and duration of flood plain inundation and watertable elevation in meadows and wetlands. Riparian area and floodplain function may be improved with the replacement of problem culverts and the closure of roads adjacent to streams.

4.4.2 H ACS - Objective 8

Direct & Indirect Effects

Proposed activities would contribute to the restoration of species composition and structural diversity of plant communities in riparian areas and wetlands. Short-term loss of individual plants or habitat would occur during culvert fill removal. However, plant communities and associated habitat would reestablish in time and would provide sediment and nutrient filtering capacity, stream bank stability, and more natural channel migration routes. A minimal, short-term removal of thermal cover vegetation could occur during culvert replacement and road closure activities but would recover quickly. Closure of degraded roads near streams and along stream banks would promote the restoration of vegetation communities which would lead to reduced sediment delivery to streams and an increase in nutrient filtering capability. Proposed activities would have no effect on existing coarse woody debris or on dependent species.

4.4.2I ACS - Objective 9

Direct & Indirect Effects

Proposed activities would maintain habitat needed to support well-distributed populations of native plant, invertebrate, and vertebrate riparian dependent species. The loss of individual plants and habitat would result from culvert removal operations but recovery of habitat would occur over time. The temporary displacement or loss of riparian dependent vertebrate or invertebrate species may occur during culvert replacement or road closure activities but would not affect the long-term viability of populations. Closure of roads that are adjacent to or provide access to ponds and special habitat areas (meadows, vernal pools) would protect plant and animal communities from potential degradation. The elimination of vehicles and the resulting recovery of vegetation on closed roads would support the distribution of native plant and animal species.

Cumulative Effects - All ACS Objectives

The cumulative effects from the proposed actions when considered together with past, present, and foreseeable future actions on private and public lands at the watershed scale are unquantifiable in the sense of representing exactly how much of a change would result from the proposed actions. The unknown state of aquatic ecosystems on private land and the scale of the proposed actions with respect to the analysis area makes predictions concerning possible impacts nearly impossible.

Aquatic ecosystems would benefit from the decrease in sediment reaching streams and from the protection and reestablishment of streamside vegetation. Enhanced stream bank stability and reduction of fine sediment reaching aquatic systems would result in beneficial effects to stream, streamside, and upland habitats immediately adjacent to, or downstream of the proposed actions. The proposed actions would have incremental effects on the condition of aquatic ecosystems in the analysis area but would not lead to any practical changes in overall aquatic condition at such a scale.

4.5 Fish

Alternative 1 - No Action

Direct, indirect, and cumulative effects to fish species are identical to those described in section 4.3.1A for spring chinook salmon. Life histories, habitat requirements, and water quality necessary to support other fish species present in the Shotgun Creek area are sufficiently similar to spring chinook salmon that effects would be indistinguishable.

Alternative 2 - Road Closures & Improvements

Direct, indirect, and cumulative effects to fish species are identical to those described in section 4.3.2A for spring chinook salmon. The removal and replacement of culverts and road closure activities may increase sedimentation to streams in the short-term immediately downstream from culvert locations. Generally, the removal of fish passage barriers, rehabilitation of stream banks, and an overall long-term reduction of sediment to streams could result in improvement to fish habitat condition.

4.6 Roads

Alternative 1 - No Action

No roads would be closed nor improved beyond regular maintenance. Since some of the resource concerns are due to where some roads are located, regular maintenance would not address the road-related resource concerns. Regular maintenance would not replace undersized culverts or culverts that are fish barriers. The road-related problems would continue.

Alternative 2 - Road Closures & Improvements

An estimated 9 miles of road would be closed which would reduce the BLM road miles from 99 to 90. An estimated 12.3 miles of roads would be improved. Road related resource concerns on 3 miles of road would be addressed through closure of the roads. Road related resource concerns would be addressed by improvements.

4.7 Vegetation

Alternative 1 - No Action

No trees would be removed to replace or remove culverts.

Alternative 2 - Road Closures & Improvements

Trees would be felled and removed in order to remove and replace culverts.

4.8 Horse Rock Ridge ACEC

Alternative 1 - No Action

Two roads recommended for closure would remain within the ACEC which may allow unwanted vehicle use of the ACEC.

Alternative 2 - Road Closures & Improvements

Two roads within the ACEC would be closed. This would remove some vehicle access from the ACEC decreasing the potential for impacts to the ACEC from vehicles. The public could access the ACEC by foot.

4.9 Common to Both Alternatives

The following are either not present or would not be affected by any of the alternatives: prime or unique farm lands, floodplains, cultural resources, Native American religious concerns, solid or hazardous wastes, Wild and Scenic Rivers, Wilderness, Bald Eagles, Canada Lynx, minority populations, and low-income populations.

5.0 List of Preparers

Team Members	Responsibilities
Liz Aleman	Recreation
Rebecca Thompson	Wildlife Biology
Cheshire Mayrsohn	Botany
Mark D'Aversa	Soil, Water, Fisheries
Mike Sabin	Forestry, Engineering
Trish Wilson	EA Writer, Team Leader

6.0 EA Review and Consultation

6.1 EA Review

This Environmental Analysis is being mailed out to the following members of the general public and organizations.

John Bianco
Oregon DEQ
Jim Goodpasture
Pam Hewitt
Charles & Reida Kimmel
Lane County Land Management
Carol Logan, Kalapooya Sacred Circle Alliance
Oregon Dept. of Fish & Wildlife
Oregon Dept. of Forestry, East Lane District
Oregon Natural Resources Council
The Pacific Rivers Council
John Poynter
Leroy Pruitt
Roseburg Forest Products
Peter Saraceno
Harold Schroeder
Sierra Club, Many Rivers Group
Swanson Superior Forest Products Inc.
Craig Tupper
Governor's Forest Planning Team
Jan Wroncy
Ann Mathews
George Sexton
American Lands Alliance
Kris & John Ward
Sondra Zemansky
Mike Sheetz
Ed Napper
Randy Dreiling
Ed Arth
Ken Curey
Ralph Kleinschmit
Brien Forrest
Larry Noworyta
Jackie Rice
Willie Bronson, Willamette Industries

6.2 Consultation

Consultation with US Fish & Wildlife Service (FWS) and US National Marine and Fisheries Service (NMFS) occurred through programmatic biological assessments.

NMFS Biological Opinion was a may affect likely to adversely affect for road maintenance due to the potential for the following:

- sediment delivery to channels
- turbidity
- loss of large woody debris
- degrade the stream influence zone (one site potential tree)

Beneficial effects occur where maintenance reduces potential for catastrophic erosion and sediment delivery to stream channels.

NMFS Biological Opinion was a may affect, likely to adversely affect due to the potential for short term:

- sediment delivery to channels
- turbidity

Long-term beneficial effects result from restoration of hydrologic functions, reduced risk of washouts and landslides, and reduction of sediment delivery to streams. Consultation with US Fish and Wildlife Service occurred through the Programmatic Biological Assessment for Projects with the Potential to Disturb Northern Spotted Owls and/or Bald Eagles in the Willamette Province for FY 2000, December, 1999.

Because measures will be taken to avoid impacts to Northern Spotted Owls (seasonal restrictions from March 1 - July 15), the effects determination of the Biological Opinion and Biological Assessment was that the proposed actions that would occur after July 15th within a quarter mile of a known activity center or unsurveyed suitable spotted owl habitat may affect but are not likely to adversely affect Northern Spotted Owls individually or collectively.

Appendix A
Road Closure List

Road Numbers

15-1-30.1C & SM. SPUR OFF END*
15-1-19.2*
SM. SPUR OFF BEG. OF 15-1-19.2
15-1-17*
15-1-17.3*
5-1-20.1B*
15-1-21.2
15-1-21.3
15-1-21.4
15-1-21.5
15-1-21.6
15-1-29.2
15-1-29.3
15-1-29.5
15-1-29.6
15-1-29.7
15-1-29.8
15-1-31.1
15-1-31.2
15-2-35
15-2-35.1
15-2-35.5
15-2-35.7
15-2-35.10
15-2-36.1
15-2-15.3
15-2-15.5
15-2-11B
15-2-1 - within ACEC
15-2-1.1 -within ACEC

* roads are causing road related resource problems

Appendix B
Road Improvement List

Road Number
15-2-26.1
15-2-25.1B
15-2-22
upper 15-1-31
lower 15-1-31
15-2-23A
15-1-19.1A
15-2-13
15-2-34
15-1-32B
16-1-5
15-1-20.1A
15-2-24
15-2-23.5
15-1-19 @ county line

The Finding of No Significant Impact (FONSI) is not a decision document. Its purpose is to state that the actions proposed do not have a significant effect on the environment and that an EIS is not needed according to information contained in the EA and other available information. The unsigned FONSI is sent out with the EA to let you know that we feel that our actions do not warrant an EIS.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT

1792A
EA-00-09
Shotgun
Roads

Preliminary Finding of No Significant Impact
Shotgun Road Closures and Improvements Project - EA OR 090-00-09

The Interdisciplinary Team for the McKenzie Resource Area, Eugene District, Bureau of Land Management has completed an Environmental Assessment (EA) and analyzed a proposal to close an estimated 9 miles of road and improve an estimated 12.3 miles of road. The proposal would be done in compliance with the Standards and Guidelines of the Record of Decision (ROD) for the Forest Plan.

Improving roads would mean replacing culverts, adding drainage features and additional culverts. These actions would take place in the Shotgun Project Area which includes the Shotgun, Cash and Drury Creek drainages. The project area is located less than 10 miles northeast of Eugene/Springfield. The actions would take place over a period of 5 years starting in fiscal year 2000.

The design features of the Proposed Action and alternatives are described in the attached Shotgun Trails Environmental Assessment (OR090-EA-00-09). Anticipated impacts to the environment will not be significant. The Proposed Action and alternatives are in conformance with the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl* (April 1994), and the *Eugene District Record of Decision and Resource Management Plan* (June 1995).

The anticipated environmental effects contained in this EA are based on research, professional judgement, and experience of the Interdisciplinary (ID) team and Eugene District Resources staff. No significant adverse impacts are expected to: (1) Threatened or Endangered species, (2) Flood plains or Wetlands/Riparian areas, (3) Wilderness Values, (4) Areas of Critical Environmental Concern, (5) Cultural Resources, (6) Prime or unique Farmland, (7) Wild and Scenic Rivers, (8) Air Quality, (9) Native American Religious Concerns, (10) Hazardous or Solid Waste, (11) Environmental Justice and (12) Water Quality.

DETERMINATION

On the basis of information contained in the EA, and all other information available to me, it is my determination that the alternatives analyzed do not constitute a major Federal action affecting the quality of the human environment. Therefore, a new EIS or supplement to the existing EIS is unnecessary and would not be prepared for this proposal.

Approved by:_____ Date:_____
McKenzie Field Manager

Figure 1.1 Proposed Road Closures

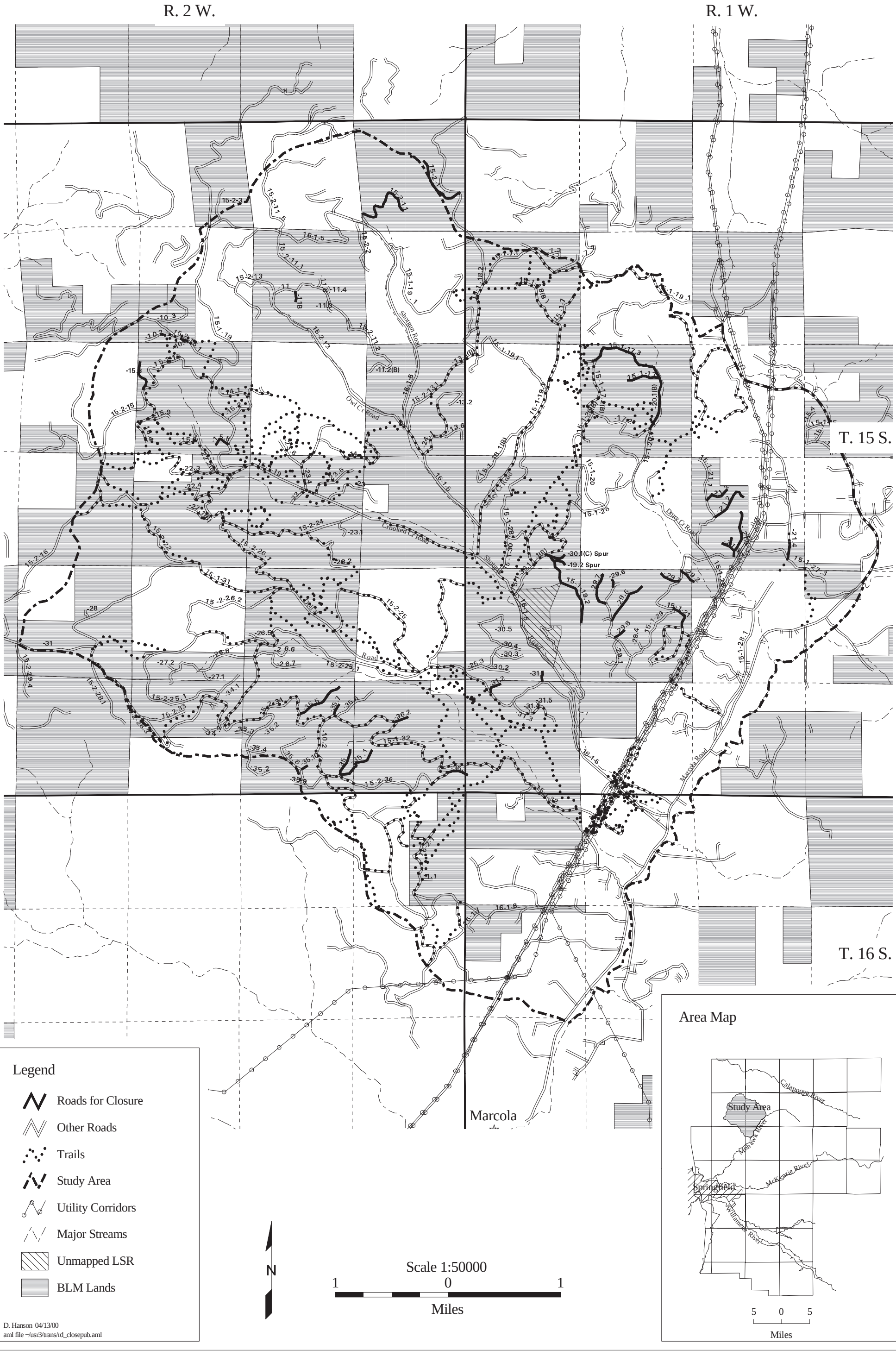

Figure 1.2 Proposed Road Improvements